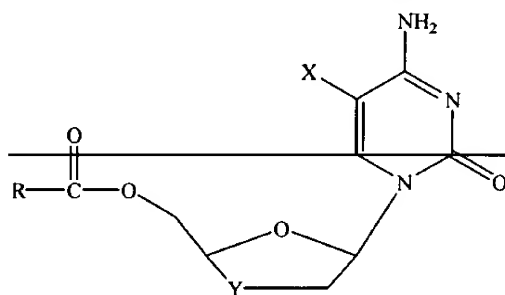


**Amendments to the Claims:**

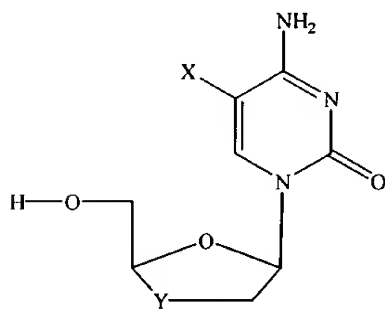
This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

Claim 1 (currently amended): A process for ~~producing a chiral, nonracemic ester of Formula I~~  
using a hydrolase enzyme the resolution of a compound of Formula A:



**FORMULA I**



**FORMULA A**

wherein:

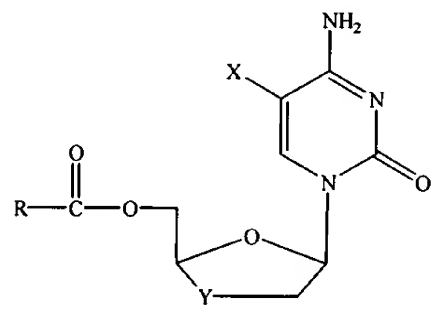
~~R is C<sub>1</sub>-C<sub>8</sub> alkyl, alkenyl, or alkynyl;~~

X = H, or F;

Y = CH<sub>2</sub>, O, S, Se, or NH;

~~said process comprising wherein the process comprises~~ the steps of:

- (a) dispersing an enantiomeric mixture of ~~an ester of~~ a compound of Formula A



**FORMULA B**

wherein:

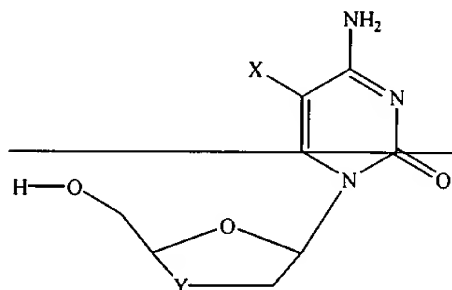
R is C<sub>1</sub> - C<sub>8</sub> alkyl, alkenyl, or alkynyl

X = F;

Y = S

at a concentration of between about 1 and about 25% (weight/volume of the non-homogeneous system), in an organic solvent system to produce an organic component;

- (b) providing an aqueous solvent system to produce an aqueous component; and
- (c) contacting said organic component and said aqueous component to form a non-homogeneous system, under conditions which permit the resolution of the mixture with a hydrolase enzyme to produce a chiral non-racemic ester of Formula I B and a non-racemic alcohol of Formula HA;



**FORMULA H**

wherein:

X = H, or F;

Y = CH<sub>2</sub>, O, S, Se, or NH, and

wherein said hydrolase enzyme is dispersed in either said organic component, said aqueous component or said non-homogeneous system.

Claim 2 (currently amended): The process of claim 1, wherein the compound of Formula B is 2-butyryloxymethyl-5-(5-fluorocytosin-1-yl)-1,3-oxathiolane.

~~A process for producing a chiral, non-racemic hydrophobic ester using a hydrolase enzyme, said process comprising the steps of:~~

- ~~(a) dispersing an enantiomeric mixture of said hydrophobic ester at a concentration of between about 1 and about 25% (weight/volume of the non-homogeneous system), in an organic solvent system to produce an organic component;~~
  - ~~(b) providing an aqueous solvent system to produce an aqueous component; and~~
  - ~~(c) contacting said organic component and said aqueous component to form a non-homogeneous system, under conditions which permit the enantioselective conversion which permit the enantioselective conversion of one enantiomeric form of said enantiomeric mixture to the corresponding alcohol; and~~
- ~~wherein said hydrolase enzyme is dispersed in either said organic component, said aqueous component or said non-homogeneous system.~~

Claim 3 (currently amended): [[A]] The process of claim 2, wherein the compound for producing a chiral, non-racemic ester of Formula B is 2-butyryloxy-methyl-5-(5-fluorocytosin-1-yl)-1,3-oxathiolane using a hydrolase enzyme, said process comprising the steps of:

- (a) dispersing an enantiomeric mixture of said 2-butyryloxymethyl-5-(5-fluorocytosin-1-yl)-1,3-oxathiolane at a concentration of between about 1 and about 25% (weight/volume of the non-homogeneous system), in an organic solvent to produce an organic component;
  - (b) providing an aqueous solvent system to produce an aqueous component; and
  - (c) contacting said organic component and said aqueous component to form a non-homogeneous system, under conditions which permit the enantioselective conversion of one enantiomeric form of said enantiomeric mixture to the corresponding alcohol;
- wherein said hydrolase enzyme is dispersed in either said organic component, said aqueous component or said non-homogeneous system; and

~~wherein~~ such that the concentration of said enantiomeric mixture is calculated based on the volume of said non-homogeneous system.

Claim 4 (currently amended): ~~[[A]] The process of claim 2, wherein the compound for producing a chiral, non-racemic ester of Formula B is 2-butyryloxy-methyl-5-(5-fluorocytosin-1-yl)-1,3-oxathiolane using a hydrolase enzyme, said process comprising the steps of:~~

- (a) dispersing an enantiomeric mixture of said 2-butyryloxymethyl-5-(5-fluorocytosin-1-yl)-1, 3-oxathiolane at a concentration of between about 1 and about 25% (weight/volume of the non-homogeneous system), in an organic solvent system to produce an organic component;
- (b) providing an aqueous solvent system to produce an aqueous component; and
- (c) contacting said organic component and said aqueous component to form a non-homogeneous system, under conditions which permit the enantioselective conversion of one enantiomeric form of said enantiomeric mixture to the corresponding alcohol;

wherein said hydrolase enzyme is dispersed in either said organic component, said aqueous component or said non-homogeneous system;

such that ~~wherein~~ said organic component comprises between about 5 and about 90% of said non-homogeneous system;

~~wherein~~ said non-homogeneous system also comprises between about 1 and about 20% of surfactant; and

~~wherein~~ said surfactant concentration is calculated based on the volume of said non-homogeneous system.

Claim 5 (original): The process according to any one of claims 1, 2, 3 or 4, wherein said hydrolase enzyme is selected from the group consisting of porcine liver esterase, porcine pancreatic lipase, *Pseudomonas species* lipase, *Aspergillus niger* lipase and subtilisin.

Claim 6 (original): The process according to claim 5, wherein said hydrolase enzyme is a crosslinked enzyme crystal.

Claim 7 (original): The process according to claim 6, wherein said crosslinked enzyme crystal is crosslinked with glutaraldehyde.

- Claim 8 (original): The process according to claim 5, wherein said hydrolase enzyme is an immobilized enzyme.
- Claim 9 (original): The process according to claim 5, wherein said hydrolase enzyme is a soluble enzyme.
- Claim 10 (original): The process according to claim 5, wherein said hydrolase enzyme is porcine liver esterase.
- Claim 11 (original): The process according to any one of claims 1, 2, 3 or 4, wherein said chiral non-racemic ester is isolated from said organic component.
- Claim 12 (original): The process according to any one of claims 1, 2, 3, or 4, wherein said chiral non-racemic alcohol is isolated from said aqueous component.
- Claim 13 (currently amended): The process according to ~~any one of claims~~ claim 1 or 2, wherein said compound of Formula B ~~enantiomeric mixture~~ is FTC butyrate.
- Claim 14 (cancel)
- Claim 15 (original): The process according to any one of claims 1, 2, 3 or 4, wherein said enantiomeric mixture is dispersed in said organic component to a concentration of between about 5% to about 15%.
- Claim 16 (original): The process according to any one of claims 1, 2, 3 or 4, wherein said enantiomeric mixture is dispersed in said organic component to a concentration of between about 1% to about 5%.
- Claim 17 (original): The process according to any one of claims 1 or 2, wherein said enantiomeric mixture is dispersed in said organic component to a concentration of between about 10% to about 20%.
- Claim 18 (original): The process according to any one of claims 1, 2, 3 or 4, wherein said organic component comprises a not more than about 50% water miscible organic solvent.
- Claim 19 (original): The process according to claim 18, wherein said organic component comprises one or more solvents selected from the group consisting of C<sub>4</sub>-C<sub>8</sub> alcohols, nitromethane, dichloromethane, toluene, methyl isobutyl ketone, tert-butyl acetate and alkanes.

- Claim 20 (original): The process according to claim 19, wherein said organic component comprises one or both of n-amyl alcohol and 3-methyl-3-pentanol.
- Claim 21 (original): The process according to claim 4, wherein said surfactant is selected from the group consisting of cationic surfactants, anionic surfactants and non-ionic surfactants.
- Claim 22 (original): The process according to claim 21, wherein said surfactant is selected from the group consisting of Tween 20<sup>TM</sup>, Tween 80<sup>TM</sup>, Prionex<sup>TM</sup>, Teepol HB7<sup>TM</sup>, Tergitol TMN-6<sup>TM</sup>, Tergitol TMN-10<sup>TM</sup>, Tergitol NP-4<sup>TM</sup>, Tergitol 15-S-3<sup>TM</sup>, Igepal CA-630<sup>TM</sup>, Tyloxapol<sup>TM</sup>, Glucose-oxycholic acid, octyl  $\beta$ -gluco-pyranoside, dioctyl sulfosuccinate, and deoxycholic acid.
- Claim 23 (original): The process according to claim 22, wherein said surfactant is Tween-80<sup>TM</sup>.
- Claim 24 (original): The process according to claim 22, wherein said surfactant is dioctyl sulfosuccinate.
- Claim 25 (original): The process according to claim 4, wherein said surfactant is added to said organic component.
- Claim 26(original): The process according to claim 4, wherein said surfactant is added to said aqueous component.
- Claim 27 (original): The process according to claim 4, wherein said surfactant is added to said non-homogeneous system.
- Claim 28 (original): The process according to claim 4, wherein said surfactant is formulated with said hydrolase enzyme.
- Claim 29 (original): The process according to any one of claims 1, 2, 3 or 4, wherein said aqueous solvent system comprises water and excipients selected from the group consisting of buffering salts, alkalizing agents, anti-microbial preservatives, stabilizers, filtering aids, co-enzymes, excipients that facilitate dispersion and excipients that facilitate function of the enzyme.
- Claim 30 (original): The process according to claim 29, wherein said aqueous solvent system comprises water buffered with phosphate buffer at a pH of greater than about 7.
- Claim 31 (original): The process according to claim 29, wherein said aqueous solvent system comprises water buffered with 2-amino-2-(hydroxymethyl)-1,3-propanediol or TRIS<sup>TM</sup>.

Claim 32 (original): The process according to any one of claims 1, 2, 3 or 4, wherein said conditions which permit the enantioselective conversion of one enantiomeric form of said enantiomeric mixture to the corresponding alcohol comprise a temperature of between about 5°C and about 45°C.

Claim 33 – 60 (cancelled)